PRACTICAL TRAINING REPORT 2013 – DRAWCARD CONSTRUCTION [CON4026X]

Construction of Library and Residences for Midlands State University, Gweru, Zimbabwe – November/December 2013

By Tafadzwa Mukaro

10/31/2014

Table of Contents

Section One

Section Two

This is a detailed account on the practical training experience I gained over a four week period working on a construction project in Zimbabwe. This counts towards my total number of Honours year practical training hours.

1. Introduction

I completed 179 hours of my practical training between the 18th of November and the 13th of December 2013 with a firm called Drawcard Construction based in Harare, Zimbabwe. The project was however at the Midlands State University in Gweru. As previously done, I deliberately opted to gain experience under a contractor rather than a Quantity Surveying firm as I was of the view point that I would gain an insight into costing of projects as well as procurement from the point of view of a contractor. This move also afforded me the chance to be exposed to site activities making it easier for me to be able to form a correlation between the pricing procedure and the actual production activities which take place on a typical site.

2. Background to the Project

The following background is a brief account on the history of the project, the owners of the complex who also happen to be the client, the purpose of construction of the structure as well as the different parties involved in the construction process.

2.1. Purpose of the Project

The project was a public project with the government aiming at expanding the Midlands State University. Student housing has long been an issue at the institution with many students being forced to rent in the high density suburb of Senga. The government thus decided to execute the project which consisted of a male and female hostel each with a housing capacity of 360 students who share double rooms. In addition to this, the students would share a common dining hall which was also part of the project. Lastly, there would also be development of a library for the premises.

The exact volume of work on the project included the two triple storey hostels in face brick finish, the dining hall which had a sunken floor and an upper level, a substation to service the complex, the library, a septic tank, warden's houses as well as storm water drainage for the entire new site. The value of the tender was priced at approximately US$9,800,000.00

3. Work Activities and Functions

I was involved in a variety of work functions on site and these are also detailed in my letter of recommendation. These included:

- ✓ Preparation of Material Schedules
- ✓ Preparation of Bills of Quantities
- ✓ Preparation of Monthly Interim Valuations
- ✓ Preparation of Production Outputs and Costs Analysis
- ✓ Measurements off drawings as well as site measurement
- ✓ Recording Daily Site Reports/Diary

4. Secondary Projects

I was primarily based on site for the duration of the project and thus secondary projects were not a big part of my work specification on this particular project. The only form of secondary project participation which I partook of on the project was a visit to the Hertfordshire reservoir construction project. Hertfordshire is a proposed new medium to low density housing development located some 20km away from the Midlands State University campus. Infrastructure in the form of roads is already being constructed as well as a few houses that have been built there. The purpose of the reservoir being constructed in the area is to address the issue of water supply for the new population which is going to stay there.

On that project, the main functions which I was required to perform were to allocate labour from our main site in order to remove formwork after the concrete had been cast as well as plasterers who would plaster the tank because the formwork used had not been of the smoothest degree. In addition to this, I was also required to measure the final dimensions of the reservoir so I could come up with amount of materials required for the plastering process.

5. Challenges Faced

We encountered a variety of challenges on this project. The two biggest problems however remained the issue of cash flows and payments from the client as well as competition from Chinese contractors who had been awarded portions of the project.

5.1. Delays in Interim Payments

The biggest challenge on the project as with most public sector projects was the issue of payments which hindered the cash flow on the project. In order to keep the project afloat, the company constantly had to channel funds from other divisions since it is a multi-disciplinary firm which also deals in mining and petroleum. Interim payments were often delayed for several months on end and this posed a real challenge to the success of the project.

5.2. Competition from Chinese Contractors

The second challenge experienced on the project was the competition from Chinese contractors who were awarded certain sections of the project. The competition came in the form of target completion as they had healthier cash flows because they were being funded directly by their government on a loan deal with our government. This did not reflect well on Drawcard which was struggling as a local contractor facing various cash flow constraints.

6. Conclusion

Ultimately, this was a very enlightening and educating project as it was my first public sector project that I'd worked on. It provided me with insight into the systems followed and how public projects work as well as the challenges which may come with it. I also gained an opportunity to learn how quantity surveying skills can be applied within a contracting firm to ensure productivity and profitability. These project management skills which I acquired are something which passes by most PrQSs and I am privileged to have gained this knowledge which I am sure will be very helpful going forward in my career.

7. Acknowledgements

I would like to give acknowledgement to the following people who I worked the most with for the assistance they provided in making this vacation training period a success:

Mr Mtedzi : - Site Agent (Drawcard Construction)
Mr Marisa : - Project Quantity Surveyor (Drawcard Construction)
Mr Chiyangwa : - Site Quantity Surveyor (Drawcard Construction)

* * * * *

Day 1 - Monday 18 November 2013

Check in time: 08:00hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 8 hours

Learning Objectives

- Introduction to company's organisational structure
- Background to job functions

Task

My first day at work mainly comprised of an induction into the company as well as the site. This process involved going through the safety structures and procedures on site. I also went through an introduction of the site staff being the site agent, site quantity surveyor, site foreman, site- clerk and stores manager. This was followed by a tour of the works just to gain familiarity with the project as well as the site itself.

After this, I received a brief overview of the company and its functions, the background to the project as well as an insight into the progress of the current project. The site quantity surveyor then briefed me on the type of work I would be expected to learn, master and carry out for the duration of my practical training with the company. These functions included taking daily measurements of work done by the labour force for the purposes of compiling output analysis reports. I would also be expected to be able to compile a wastage report for the end of the month as well as performing reconciliation of expenses on site.

Lastly, I was also introduced to the daily site diary. This is a book in which you record all the personnel who were present on site for the day. These are broken down into management as well as the relevant trades. You also record the plant which was on site for the day. Finally you note the areas of work done for that particular day on site. This is all done and then signed off by the quantity surveyor.

Conclusions and Lessons Obtained

My first day on site served as a good introduction and settling-in experience into the organization. I also gained familiarity with the project along with my environment. I got a detailed view into the organizational structures employed on a site and I also became aware of certain Site QS functions which I didn't know existed before-hand.

Day 2 - Tuesday 19 November 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 17 hours

Learning Objectives

- Learning different steel rod sizes
- Components of steel reinforcement
- Measurement of storm water drainage
- Measurement of catch-pits
- Measurement of roof insulation
- Completion of site diary

Task

I found out that I was working on site along with another student from a different institution. This morning we toured the site with the site QS on an inspection of the works done to date. We were involved in taking measurements of the works done so far, particularly the concrete. We also verified the amount of rainwater piping as well as conduits cast into place with the concrete.

Later on during the day, we went around the site with the Site QS checking the reinforcement bars that had been tied into place as well as taking stock of the rebars already delivered to site for the month. We then went onto measure the storm water drainage done to date along with the excavations which were performed. This also included measuring the excavations and brickwork in the catch pits. Lastly we measured the roof insulation laid below the roofs of the warden's houses.

As the day drew to an end, I filled in the site diary for the first time taking note of all the plant we had on site, as well as accounting for all the labour personnel, and staff that were on site for the day. This is obviously done as a record for safety and security but also aids with verifying time sheets at the end of each month.

Conclusions and Lessons Obtained

I learnt how to measure the various aspects of the works on a project such as the concrete works, piping, conduits, storm water drainage on site and not just on plan as well as catch-pits. Additionally I learnt how to measure roof insulation. Lastly, I filled in the site diary for the first time as well as to interpret it (albeit with assistance) so I could be able to do it unsupervised in future. This is vital in keeping track of personnel attending work along with the assets which are on site and keeping track of whether things go missing or not.

Day 3 – Wednesday 20 November 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 26 hours

Learning Objectives

- Preparation of monthly interim valuations
- This particular valuation specific to concrete works

Task

This morning I came into work and learnt that all the extensive measurement and inspection of the works we had done the day before was mainly for the purposes of preparing the monthly valuation for the works. This is a process that the site QS had already begun before I started working. Therefore, as it turns out, today was the first day I would gain exposure to this process.

We started off with the largest component of the works which is the concrete. I learnt that from the contractor's point of view, the concrete works portion is the one which must be valued with extreme care because it is the cash cow and brings the money in for the month. It is on this basis that this process takes the longest time. It involved us taking into account all the measurements we had taken and cross-referencing these with the working drawings. After ensuring that the quantities we'd taken were consistent with the working drawings, we had to evaluate what percentage had been done on a spreadsheet. This spreadsheet is designed before-hand at the beginning of the project and allocates the amount of materials as well as preliminary amounts allocated per unit of each component of the project.

The last stage of this process was ensuring that the rates allocated to each component were correct as per the rate stated in the Bills of Quantities. Furthermore, any revisions to the design were also taken into consideration as well as any new rates that may have been approved for these changes. Lastly, I filled in the daily site diary.

Conclusions and Lessons Obtained

Today I learnt how to account for concrete as a portion of the works done on a project for the purposes of submitting an interim valuation for monthly payment. It is a bit of a tedious task and must be handled with care because if the contractor is not making the required amount of money then it is problematic for the cash-flow and the project could ultimately encounter problems.

Day 4 – Thursday 21 November 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 35 hours

Learning Objectives

- Preparation of monthly interim valuations
- This particular valuation specific brickwork

Task

Today we continued with compilation of the monthly interim valuation as with the day before. We'd managed to complete the works and went onto the brick work which is the second largest component on the project. Once again we compared the as built measurements with the working drawings and verified any revisions made in the design to ensure everything was accurate.

With the brickwork, it was not so much of the ordinary bricks that brought in the money but rather the face-brickwork. This project was specified to have a great deal of the finishes done in face brick and hence this is where the contractor makes his money.

Lastly, as the day drew to an end I filled in the daily site diary for the day; this time without assistance from the senior site QS.

Conclusions and Lessons Obtained

Today I learnt how to value the brickwork section of a project for the purposes of producing a monthly interim valuation. This includes all the brickwork in the superstructure across the entire project.

Day 5 – Friday 22 November 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 44 hours

Learning Objectives

- Preparation of monthly interim valuations
- Valuation specific to storm-water drainage
- Excavations carried out on site
- Reinforcement placement
- Roofing structures

Task

Today we carried out the remaining portion of the valuation. This mainly comprised of the smaller portions of the work such as the storm-water drainage installations, minor excavations which had been carried out for installation of services on site, reinforcement which had been placed for components still to be cast in concrete as well as the roofs on the wardens' houses.

Although it was a process which I had become accustomed to over the last few days, we had to work diligently as we had to submit the valuation claims to the project consultants; Marsden Consultants, based in Harare over the weekend. I completed the site diary and submitted it to the site clerk who had to begin verifying time sheets in order to pay everyone for the month once the money came through.

Conclusions and Lessons Obtained

I learnt how to value the remaining aspects of a project including reinforcement, roofing, storm-water drainage installation and earthworks.

Day 5 in Pictures

Day 6 - Monday 25 November 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 53 hours

Learning Objectives

- Measuring daily work completed on site
- Calculation of productivity

Task

This morning we arrived on site and the first thing we did was take measurements on the works that had been performed the previous day which in this case was the Friday. The main work which had taken place was superstructure brickwork in the male hostels as well as the sub-station to service the dining hall. We required these measurements for the preparation of our daily output report. This process included the measurement of lengths of brickwork then determination of number of courses worked on that section.

The daily output report comprises of a section with the number of square meters worked, the number of bricks laid in total, the amount of work done by each man, the allowable amount of work done, expected work done along with variance in work done for the day. This information is then used to determine whether the firm is meeting its daily targets or not.

Conclusions and Lessons Obtained

I learnt how to compile an output report as well as interpret it determining whether the labour force is working at the required rate or whether they need to be pushed more in order to perform at the required level for the project to remain viable.

Day 6 in Pictures

Day 7 - Tuesday 26 November 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 62 hours

Learning Objectives

- Accounting for fixtures and openings in output report

Task

As always, the first thing we did upon arrival on site was taking measurements of work carried out the previous day. The workers had carried out superstructure brickwork in common and face brick in the male residence. They had also carried out compaction of imported material where the surface bed is going to be cast. They had set out and laid the DPM for sections of the surface bed they intended on casting in the dining hall.

The new thing I encountered today is measuring areas where fixtures such as door frames had been set up and how these are accounted for in an output report. The area of the door itself is taken into account and substituted with brickwork in order to account for the time to setup which would otherwise have been spent on laying bricks. I filled the daily site diary at the end of the day.

Conclusions and Lessons Obtained

Today I learnt how to correctly account for the time taken in setting up fixtures such as door frames or window frames. If these things were disregarded then they would distort the output rates of the workforce per day and in the end it would actually seem according to the report as if they did not work at the required rate.

Day 8 – Wednesday 27 November 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 71 hours

Learning Objectives

- Compilation of fortnightly and monthly output report
- Compilation of fortnightly and monthly wastage report
- Reconciliation of materials

Task

As always, I got to work in the morning and went into the field to take measurements of the work done on the previous day. Thereafter, I returned to the office to enter these quantities into the spreadsheet and compute the levels of productivity on site for the day.

The fortnightly site meeting was scheduled for the Friday hence I spent the rest of the day compiling all the data pertaining to the daily output reports for the month for this particular meeting. We were scheduled to have two meetings. The first would be with the different consultants as well as the client on the project and the second one would be an in-house meeting with the different managers and foremen of the different trades and departments on the project.

In addition to compiling the output report, it was essential cross check the delivery notes and the materials in storage on site against the volume of work carried out. This is a reconciliation process and serves the process of informing the contractor whether materials are being used efficiently or not. It is a management tool and an efficient process means the contractor can make more money on the project. From all this information, I learnt to compile a wastage report which would also be presented at the in-house meeting. At the end of the working day, I completed the daily site diary.

Conclusions and Lessons Obtained

Today I learnt how to analyse and compile all the data collected on site for the purpose of effective management of the project. I realized the importance of all the daily procedures carried out by the site QS in order to ensure that a site operates as effectively as possible and generates as much money as possible for the company.

Day 8 in Pictures

Day 9 – Thursday 28 November 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 80 hours

Learning Objectives

- Verification of reports
- Compilation of project progress report

Task

Today I arrived on site and went about the usual procedure of measuring the work performed the previous day as well as producing the daily output report for the site. Much of the rest of the day was devoted to ensuring that all the documentation for the meeting tomorrow was in order and was error-free.

In addition to the output and wastage reports, we had to compile other documentation which was more relevant to the meeting with the client and the consultants. This documentation included the progress report on the project as well as the projected timeline of completion.

Thereafter, I ended off the day running all the prints of the documents for the next day and ensuring that there was an appropriate number for all the parties required to be present. I then completed the site diary at the end of the working day.

Conclusions and Lessons Obtained

The main function I learned to carry out today was that of analysing the amount of work done on a project, verifying it with the work schedule and critical plan in order to come up with a progress report for the client.

Day 10 - Friday 29 November 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 89 hours

Learning Objectives

- Professional meetings with other professionals and the client body

Task

The first task I performed in the morning was to take measurements of the previous day's work and input them into the spreadsheet for daily output rates. Thereafter we set about preparing for the meetings to follow on later during the day.

The first meeting was with the client and the body of consultants on the project. We discussed the outlook of the project as well as the progress achieved thus far. It was also a very important meeting as it was the last one before the builder's holiday for the year. After the meeting, the PrQS from Marsden Consultants went around the site on a tour with us in order to just get an idea of whether the claims we had submitted in our valuation were consistent with the works we had carried out on site. We also answered any queries that he had regarding any aspect of the works.

Later during the day, we had our second meeting which was in-house. This was with all the various foremen as well as heads of departments. We discussed issues such as their rate of work output along with the wastage of materials on the project. Meetings of this sort are mainly for the purpose of ensuring efficient operation on the project. It is the site QSs job to guide the rest of the site in terms of the direction to take since it is all related to costs.

Conclusions and Lessons Obtained

I had my first experience of being in a meeting with the relevant stakeholders on a project. This was also an opportunity to witness and be part of the QSs function in defending their measurements and valuations along with reigning in activity on site in order to ensure optimum production.

Day 11 – Monday 2 December 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 98 hours

Learning Objectives

- Construction of concrete reservoirs

Task

This morning we took measurements of works carried out the previous day as usual and once again because it was Monday, Friday was considered to be the previous day. The main activity which took place was the construction of superstructure brickwork. This was split up into ordinary stock brickwork and extra-over for face brickwork. After obtaining these measurements I compiled the daily output table in order to determine whether we were achieving our daily targets or not. I also filled out the daily site activity diary.

Later on we visited the company's other project site in Hertfordshire – a new residential development. The site was located some 20km from the Midlands State University site. There, construction of a water reservoir was taking place for the supply of water to the new residential development. We surveyed the works carried out to date for the purposes of compiling a progress report for that particular project. Most of the concrete work had been carried out already and what remained was a bit of sundry work along with plastering of the internal surface of the reservoir.

Conclusions and Lessons Obtained

Today I was exposed to the technology involved in the construction of concrete reservoirs. A variety of plant is required on such a project in addition to the large of formwork needed and it is vital to price for all these things accurately. I also learnt the purpose and importance of progress reports when it comes to meetings with the client team along with the contractors on a project.

Day 12 - Tuesday 3 December 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 107 hours

Learning Objectives

- Resource allocation

Task

Today apart from coming into work and taking measurements of the work and analysing output, I was asked to analyse how much work is outstanding on our target for the builder's holiday. This was essential in order to determine how much labour was still required on site. The remainder was required to go to the reservoir site in Hertfordshire to strip the slab form work inside the reservoir so that the plasters could plaster the inside.

We planned to cast one more deck on site as well as do some more brickwork in addition to the work at Hertfordshire. In the end, we decided to send the carpenters to Hertfordshire as well as a few bricklayers' assistants to speed up the process of stripping the formwork. During this period, the remaining bricklayers continued working while the steel fixers installed the reinforcement for the bases and columns to the slabs. At the end of the working day I filled out the site diary.

Conclusions and Lessons Obtained

The work carried out today helped get exposure to the technique of spreading overheads across projects effectively in order to ensure the company remains profitable and viable.

Day 12 in Pictures

Day 13 - Wednesday 4 December 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 116 hours

Learning Objectives

- Compilation of a materials list.

Task

Today I carried out the initial tasks which take place at the beginning of every working day on site. I took all previous work measurements then produced the daily output report. The carpenters had gone out to the reservoir site out in Hertfordshire so it was just basically brickwork and steel reinforcement to be measured.

After doing this, I was required to produce a materials list for the plastering which was meant to take place at the reservoir as soon as the formwork had been stripped out of the inside of the tank. This was something I had previously been required to do at previous companies therefore I did not find it too challenging. I then completed the site diary for the day.

Conclusions and Lessons Obtained

Today I measured the productivity output of steel fixers which was something I'd never done before and offers a different dynamic. It gave an insight into the varying levels of difficulty of work executed on site.

Day 14 - Thursday 5 December 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 125 hours

Learning Objectives

- Processing material orders

Task

Today I took note of the productivity levels on site. The carpenters were done with the formwork stripping at Hertfordshire therefore it is an additional process which we had in operation on site for the day. In addition to this, I had to compute the amount of materials required for the concrete works to take place the following weeks.

After getting the quantities, I had to calculate the cost of ordering these materials and then the project quantity surveyor contacted the company's head office in Harare to ensure that the funds got released. Thereafter we drove into town to the suppliers to place orders and sort out the logistics. We completed this task and after returning to site, I completed the daily site diary.

Conclusions and Lessons Obtained

I learnt to come up with materials required based on the varying ratios of the concrete to be cast. I also got the experience of going to negotiate prices and discounts with suppliers as well as establishing and maintaining supply chains.

Day 15 - Friday 6 December 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 134 hours

Learning Objectives

- Processing delivery notes

Task

Today I processed the usual requirements of taking measurements and calculating productivity on site for the day. The main activities taking place on site were the placing of the formwork for the deck we were going to cast the following week. Following up on this activity were the steel fixers such that both processes were running concurrently in order to maximize productivity.

Later in the afternoon we took delivery of the cement and aggregates for the concrete. I had to verify the quantities delivered versus the quantities invoiced before the project quantity surveyor signed off on the delivery. I was then responsible for filing the delivery notes appropriately. At the end of the day I filled out the daily site diary.

Conclusions and Lessons Obtained

Today I learnt how to take into account the amount of deliveries made onto site as well as to ensure that these are stored appropriately and stock is taken by the stores man. I also learnt how to verify delivery notes as well as file them appropriately. These become essential when it comes to processing interim valuations at the end of each month as well as keeping track of project expenditure on materials.

Day 15 in Pictures

Day 16 – Monday 9 December 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 143 hours

Learning Objectives

- Verification of site documentation

Task

Today was a bit of a slow day on site. I took measurements of the previous work done on the site and computed the productivity rates. In addition to that we began verifying all the delivery notes that we had on site and the payment valuations to make sure they were up to date such that we could produce the end of year progress report as well as assess the financial situation on the project.

The carpenters continued with the construction of the formwork whilst the bricklayers worked on the masonry aspects of the project. Most of the other trades had winded down for the year and the single thing that remains before the builder's holiday are the concrete works to be executed this week. This was not project specific but I also took time to go through the contract documentation for the contract just to understand how things operate since we are groomed in the use of the JBCC Principal Building Agreement.

Conclusions and Lessons Obtained

I learnt about how the contracts are set out on Zimbabwean projects. In addition to that I was exposed to the system in which data is stored and handled on site and how it is verified so that contractors know exactly what kind of position the project is in when they require that information.

Day 17 - Tuesday 10 December 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 152 hours

Learning Objectives

- Casting of concrete in columns and bases
- Casting of concrete in stairs

Task

Today I performed the routine of taking daily measurements of work done on site and calculating the level of productivity. Thereafter we went out into the field where the main activity to be carried out for the day was the casting of concrete in bases and columns for first floor of the girls hostel. Thereafter, the second activity for the day was casting the concrete for the stairs to the dining hall before the casting of the slabs and beams which was to be done the next day. At the end of the day I completed the daily site diary.

Conclusions and Lessons Obtained

There was basically one activity taking place on site for the day. The holidays are now close and most of the work force has already begun to take their annual leave. This decision to cut down on the amount of work activity has also been due to the restricted cash flow situation plaguing the project.

Day 17 in Pictures

Day 18 - Wednesday 11 December 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 161 hours

Learning Objectives

- Casting of concrete beams and slabs

Task

This morning I computed and logged the productivity rate for the previous day's work. There was little need for measurement because I had been present for the work which had taken place and I knew what dimensions of concrete had been cast as well as the time it had taken to cast that concrete.

Thereafter we went back into the field where today the activity was the casting of the first floor slab and the beams to the dining hall. This represented pretty much all the work scheduled to take place on site for the day. I then completed the daily site diary at the end of the working day.

Conclusions and Lessons Obtained

I was able to work in an environment where concrete is being cast and to observe the different factors associated with the process such as the amount of waste produced as well critical issues such as health and safety.

Day 18 in Pictures






Day 19 - Thursday 12 December 2013

Check in time: 07:30hrs
Knock-off time: 17:00hrs
Cumulative number of hours: 170 hours

Learning Objectives

- Evaluation of financial position of project

Task

As with the previous day, there was no real need to measure the volume of work done as I had been on site during the process and thus was aware of this volume. I computed the level of productivity for the day and saved it. Thereafter we had to evaluate the financial position of the project for the close of the year.

We had the stores man give us information of the amount of material we had left on site. We then tallied this with all the invoices from purchases which had been made as well as the payments that had been done for all the work executed throughout the calendar year. This gave an indication of whether the project was being run profitably or not. Thereafter, I completed the daily site diary at the end of the day.

Conclusions and Lessons Obtained

The main skills I gained today were those of evaluating the financial state of a project as well as being aware of the value of materials stored on site in the event of contracts which allow compensation for such are in use. I also learnt how to produce a report on this financial state.

Day 20 - Friday 13 December 2013

Check in time: 08:00hrs
Knock-off time: 16:00hrs
Cumulative number of hours: 177 hours

Learning Objectives

- Compilation of close of year documentation

Task

Today was a relatively short day. Each of the company's sites and projects are required to report back to head office on their projects. We compiled all the reports that we had made and then send them off to the head office in Harare.

Conclusions and Lessons Obtained

I managed to get the opportunity of obtaining insight into the role of the site QS in the close year end of a construction project.